

The Embarcadero *San Francisco, CA*

As San Francisco's role as a major cargo port diminished, the neglected piers and port facilities along a 7.5 mile stretch of waterfront between Fisherman's Wharf and Mission Bay underwent serious redevelopment. What resulted from the joint public/private effort is one of the world's most successful examples of waterfront transformation.

\$50 million public funds committed for infrastructure

\$1.3+ billion in development over 7.5 miles of waterfront





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37°47'11.42"N 122°23'47.19"W

Jun 2007

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San Francisco's Embarcadero

The proposition for a serious redevelopment of this roughly 2-mile tract of land along San Francisco's waterfront came in the aftermath of the Loma Prieta earthquake in 1989, which heavily damaged the two-story elevated Embarcadero Freeway formerly occupying this space. Debate buzzed between city officials and special interest groups over whether to simply repair the viaduct, or tear it down and construct a tunnel. A compromise was reached when it was decided to build a boulevard wide enough to accommodate car, light rail, and pedestrian use.

Stretching from the famed Fisherman's Wharf in the north to Mission Bay in the south, the goal of the Embarcadero redevelopment was to reconnect San Francisco's downtown with the then neglected waterfront neighborhoods, formerly shadowed by the elevated freeway. In 1990, a new land use plan for the waterfront, developed by the Port of San Francisco, the State Lands Commission, and the Bay Conservation and Development Commission, created a series of parks and walkways, thereby greatly improving public access to the waterfront.

Pedestrian Focus

The rapidly deteriorating waterfront piers, relics of San Francisco's commercial shipping history, were also slated for renovation and adaptive reuse. One of the most successful transformations is Wilson Meany Sullivan's renovation of the Ferry Building, formerly a ferry terminal, into a gallery of fine restaurants and gourmet food vendors (see right).

The city spent roughly \$50 million to rebuild the Embarcadero as a boulevard flanked with palm trees, with a wide pedestrian promenade. In addition, by the late 1990s the city began running historic trolleys on the Embarcadero between downtown San Francisco and Fisherman's Wharf, using trolleys from the 1930s and earlier that were acquired from European and other American cities.



Above: The Embarcadero's boulevard accommodates 4 car lanes, light rail, and foot traffic.

Below: The renovated Ferry Building and picturesque Bay Bridge in the background.





Above: The *Vaillancourt Fountain* by French-Canadian Artist Armand Vaillancort.
Below: *Cupid's Span* by Swedish artists Claus Oldenburg and Coosje van Bruggen.



San Francisco's Embarcadero

The Embarcadero is first and foremost a place for people. Apart from its picturesque setting along the shores of San Francisco Bay, visitors are also treated to eye-catching city views and a host of art installations. This blend of natural and artistic beauty draws hundreds of thousands of people a year to take a stroll down the Herb Caen Way, the pedestrian promenade named after the long-time San Francisco columnist. Studies show a direct link between increased pedestrian traffic and economic activity. Drawing people out with works of public art, such as these pictured to the right, improve local retail, hospitality, and restaurant sales.

Real Estate Impact

Almost immediately after plans were divulged to tear down the viaduct and redevelop the waterfront, commercial developers began to eye waterfront real estate for investment opportunities. The success of the Ferry Building renovation provided further momentum for development of the land around Embarcadero.

The most notable development to date is the emergence of a new neighborhood at the southernmost point of waterfront at Mission Bay. Formerly the site of a train depot, this 303-acre area was developed by Vancouver, Canada-based Bosa Development to incorporate high-end residential and retail uses, directly adjacent to the revitalized waterfront. Homeowners have begun occupying the space.

Attracting Business

The Mission Bay side of Embarcadero has also captured the eye of several corporations and institutions. Most notably, the mega-retailer Gap has moved its corporate headquarters to a posh waterfront office building. The University of California at San Francisco is also constructing its new campus just inland of the new development. Other projects include the headquarters of life science research and development firm FibroGen, and the research facilities of the J. David Gladstone Institute, located on the new UCSF campus.

The Big Dig *Boston, MA*

After weathering 18 years of construction and a massive \$15 billion in project expenses, Bostonians are left with truly profound infrastructure improvements that hopefully live up to the city's — and nation's — expectations.

\$7.5 billion in private investment

43 thousand jobs created

72% reduction in trans-city travel time

\$168 million in time/cost savings annually





42°21'31.24" N 71°03'10.00" W

Jun 2007

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Boston's Big Dig

This project emerged as an effort to increase traffic capacity through the heart of Boston, while simultaneously stimulating property values and creating green space in the downtown area. The "Big Dig", formally known as the Central Artery/Third Harbor Tunnel Project, consists of a handful of massive infrastructure improvements, which taken together constitute a redevelopment unlike any other seen in United States history: two underground expressways, one passing underneath the city core, one underneath Boston's Inner Harbor; a cable-stay bridge, and the Rose Fitzgerald Kennedy Greenway, a long sprawling boulevard/park which took the place of the replaced elevated Central Artery viaduct.

The massive scale of this undertaking has drawn staunch criticism, as well as praise. Those opposed to the Big Dig claim that the benefits of the project do not outweigh the immense costs (upwards of \$15 billion). Proponents argue that the full benefits of the Big Dig will not be realized immediately, but that in the long term it will lead to increased economic activity, real estate value appreciation, and overall improvements in the quality of life of Bostonians.

A study conducted by the Economic Development Research Group, a Boston-based consultancy, quantified the economic impacts of this project on the Boston metropolitan statistical area over the lifespan of the project. The conclusions of the report are measured as improvements to traffic flows through the city and to surrounding areas, as well as direct and indirect benefits to real estate values along the Rose Kennedy Greenway.

The report concludes that this project, despite going far over budget, has far exceeded the expectations of the city planners who envisioned in the early 90s, in terms of improvements to traffic, as well as economic development opportunities.



Above: A view of the Rose Fitzgerald Kennedy Greenway from an adjacent building.

Below: One of several "pocket parks" along the Greenway.



Boston's Big Dig

The Central Artery/Third Harbor Tunnel Project has created locations for new development in some areas where the elevated highway structure formerly stood. Together, these projects have helped to knit together neighborhoods formerly separated by the elevated highway.

Traffic Improvements

Before the Central Artery Tunnel was built, drivers using the viaduct traveled at an average speed of 10 mph through the city. The wider tunnel has increased that average speed to 43 mph, reducing average travel time through the city from 19 minutes to just 2.8. The creation of the Ted Williams Tunnel, which connects Boston's core to the airport by running underneath the harbor, means that 2.5 million people are now within 40 minutes of the airport. The collective time and money benefits of the infrastructure improvements to travelers is estimated by the EDRG to be roughly \$168 million annually.

Real Estate Improvements

The Big Dig has stimulated enormous investment in real estate. The value of the projects completed, currently in construction, or planned totals around \$7 billion dollars. This includes the development of 8,700 new housing units, 10 million square feet of office development, and the creation of 43,000 jobs. Long term projections for the South Harbor District of Boston indicate the creation of 16-21 million square feet of new residential and office development, and projected tax revenues of \$100-120 million annually for the city of Boston.



Above: A view of the Leonard Zakim Bunker Hill Bridge from the RFK Greenway.

Below: indigo lights illuminate the bridge at night



Inner Harbor *Baltimore, MD*

A city struggling with an inferiority complex and a declining economic base got a boost of confidence when this neglected stretch of Chesapeake Bay was reinvented to suit the needs of a new generation. What was once a relic of Baltimore's industrial past is now a hallmark of successful urban waterfront redevelopment.





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Image U.S. Geological Survey

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39°17'02.66" N 76°36'29.46" W

2002

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Baltimore's Inner Harbor

As Baltimore's importance as a major industrial center and shipping port waned in the second half of the 20th century, much of the waterfront land previously devoted to these industries fell into obscurity. As property values decreased and families migrated to the security of the suburbs, Baltimore's Inner Harbor became a source of civic discontent, and some might even say embarrassment, for the population of this nation's once sixth largest city.

By the mid 1950s, after a decade of declining property values, the local business community decided that desperate measures needed to be taken to revitalize Baltimore's downtown, and once again bring the city back into national and international relevance. In 1954, the business community created the Committee for Downtown to pursue this end.

What ensued were a series of massive civic development projects, beginning with the \$140 million (1957 dollars) Charles Center Project, the first project in the United States that called for the redevelopment of the very center of downtown. By commissioning famed Dutch architect Mies van der Rohe to design One Charles Center, the first in a series of buildings for the redevelopment, broad public support was gained for the massive project.

The redevelopment of the downtown core led to greater focus on the neglected Inner Harbor neighborhood. By 1963, this area was all but abandoned by the shipping industry and the neighborhood's natural ambiance was crying out for new users to capitalize on its prime location. Throughout the 60s and 70s the city extensively renovated the bulkheads and shoreline, created wide boulevards, and built the 28-story World Trade Center.



Above: The National Aquarium complex built in 1981

Below: Baltimore's Historic Power Plant Building, built in 1902 and renovated in 2002





Above: The USS Constellation, one of the Navy's first vessels, is permanently docked at Inner Harbor

Below: The Seven Foot Knoll Lighthouse was moved from its original location and placed permanently in the Inner Harbor



Baltimore's Inner Harbor

The new look of the Inner Harbor attracted several prestigious businesses, such as IBM and the Federal Reserve Bank, and they were aptly accommodated with newly built Class-A office space.

The newly positioned Inner Harbor has a host of attractions for tourists and native Baltimoreans alike. In addition to the wide pedestrian promenades and abundant green space, careful attentions was paid to creating civic spaces with long-lasting appeal. In 1979 the Baltimore Conservation Center opened its doors, and just two years later in 1981 the National Aquarium in Baltimore, pictured on the previous slide, opened to the public.

In addition to these institutions, there is a decided emphasis on floating attractions to pay homage to Baltimore's maritime history and unending attachment to the sea. In 1976, the fully restored military frigate, the USS Constellation (pictured left), reputedly the second ship commissioned by the United States Navy, was permanently docked at in the Inner Harbor. There is also a World War Two Era submarine on display.

Tourists can also hitch a ride on a passenger ferry out to Fort McHenry, a Revolutionary War era embankment and the location where Francis Scott Key reportedly wrote the national anthem.

Real Estate Impacts

By 2000, upwards of 60 new projects were either built or recycled: 15 office buildings, 12 hotels, ten museums, and 17 other attractions, plus the Charles Center Subway Station, a new police headquarters building, and the campus of the Living Classroom Foundation. These developments revitalized the declining residential real estate market, starting with the renovation of neglected rowhouses in the Otterbein neighborhood, and later the conversion of vacant loft buildings.

Millennium Park *Chicago, IL*

Completed in July of 2006, this park is a stunning example of how public/private partnerships combined with proper planning, commissioning, and marketing efforts can transform a neglected urban area into a hub of cultural and economic activity.

\$270 million in public funds committed

\$220 million in private funds donated

\$1.4+ billion impact on real estate market

\$2.6 billion estimated sales revenue from visitors



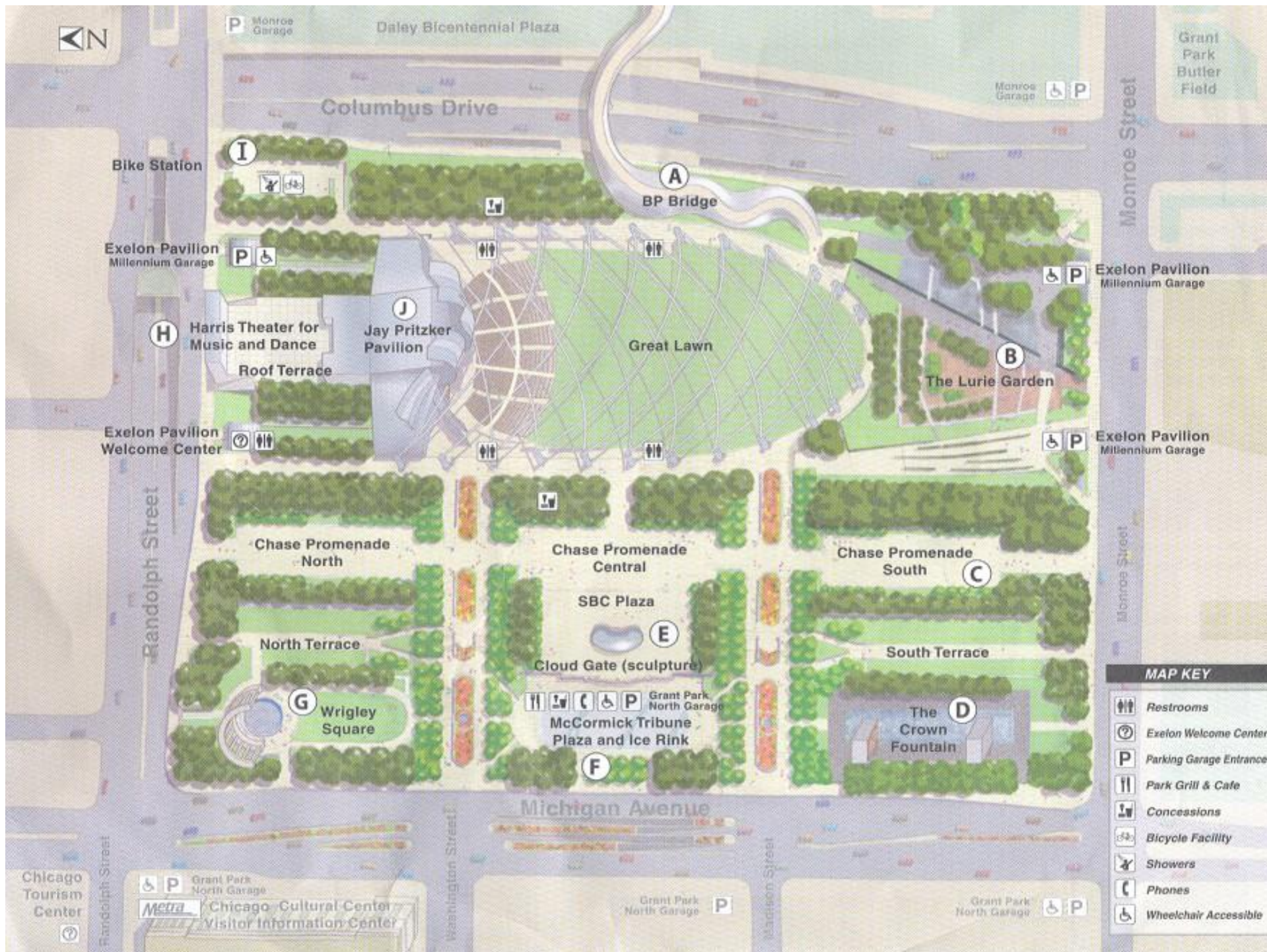


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Nov 6, 2007

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Chicago's Millennium Park

This 24.5 acre park, located at the northwest corner of Chicago's Grant Park, is a redevelopment of former industrial and neglected park space along historic Michigan Avenue, abutting Chicago's Central Business District, and just a stone's throw away from the western shore of Lake Michigan. Hailed as a triumph of urban infill, Millennium Park combined a mix of cultural venues, public artwork, water features, and green space to regenerate an economically stagnant area and help reposition Chicago as a culturally sophisticated global city.

Tourists from abroad as well, as native Chicagoans, can enjoy the park's extensive gardens, concerts at one of the park's two amphitheaters, dine at restaurants, and attend fairs and festivals held on the grounds throughout the year.

The "Millennium Park Effect" on Tourism

This park is the result of the efforts of talented architects, artists, and landscape designers, whose individual contributions combined to make this park a Chicago icon. Pieces such as Anish Kapoor's *Cloud Gate*, and Frank Gehry's *BP Bridge*, as well as others, help the park draw millions of tourists a year, which in turn stimulates hotel, retail, and restaurant sales in the surrounding area.

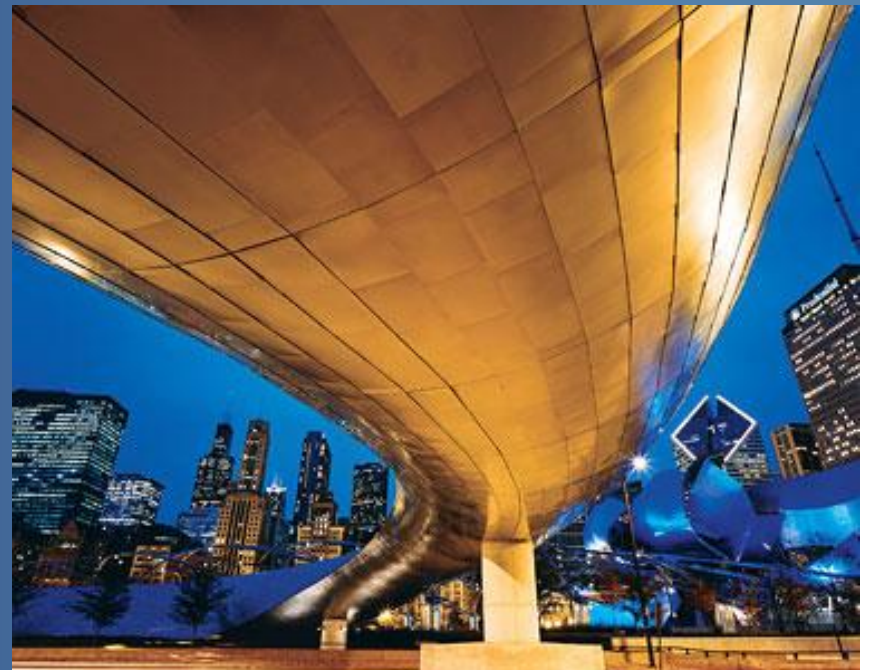
The ability of the built environment to attract tourists purely for the sake of architectural beauty was first documented in the city of Balboa, Spain, where Frank Gehry's Guggenheim building drew nearly 1.5 million visitors in the first year alone. The "Balboa Effect", as it eventually came to be known, rejuvenated the deteriorating industrial town.

Completed in July of 2006, Millennium Park had attracted over 2 million visitors in six months -- and that number doubled the following year. In an economic impact study (forecast) projected over a period of ten years from 2005-2015, it is estimated that the gross sales revenue from these visitors alone will be between \$1.9 and \$2.6 billion. (Goodman Williams Group and URS Corporation: *Millennium Park Economic Impact Study*. April 21, 2005).



Above: *Cloud Gate* sculpture designed by Indian artist Anish Kapoor.

Below: Underside of *BP Bridge*, and in the background, *Jay Pritzker Music Pavilion*, both designed by American architect Frank Gehry.





Above: View of *Jay Pritzker Music Pavilion* from the Great Lawn

Below: View of the Chicago skyline from the *Lurie Garden*.



Chicago's Millennium Park

Real Estate Impact

The presence of this park has undoubtedly contributed to the substantial increase in real estate value and property tax revenue along its borders and in the surrounding area. As early as 2000, real estate values and the property tax base noticeably increased when the park was in its final stages of planning.

According to an article in the Spring 2005 *Economic Development Journal*, a total of seven condominium projects attribute their successful sales to Millennium Park, the most prominent being the 57-story tower Heritage at Millennium Park. The average price per square foot sales price of this building was \$592, which made it the most expensive residential space in the city. The success of this project quickly led to the development team constructing an even larger condominium project also along the park's periphery.

The Millennium Park Economic Impact Study conducted by URS Corporation and the Goodman Williams Group calculates total impact of Millennium Park on the adjacent real estate market to be roughly \$1.4 billion in the ten-year time period between 2005-2015.

Attracting and Retaining Businesses

There is increasing evidence supporting the notion that the new generation of young professionals puts increasing emphasis on quality of life when choosing a place to work. The addition of Millennium Park to Chicago's long list of cultural attractions has drawn a lot of business in recent years, most notably the corporate headquarters of Boeing and BP. Attracting businesses to Chicago will result in more local jobs, increased tax revenue, maximized occupancy of retail and office space, expanded hotel occupancy, and increased visits to other cultural institutions in the area.

Discovery Green *Houston, TX*

Completed in April 2008, this 12 acre expanse on the eastern edge of Houston's downtown core is an urban oasis of shaded promenades, interactive water features, and 100 year old oak trees. Discovery Green is one major step towards greening, and improving the quality of life, in America's fourth largest city.

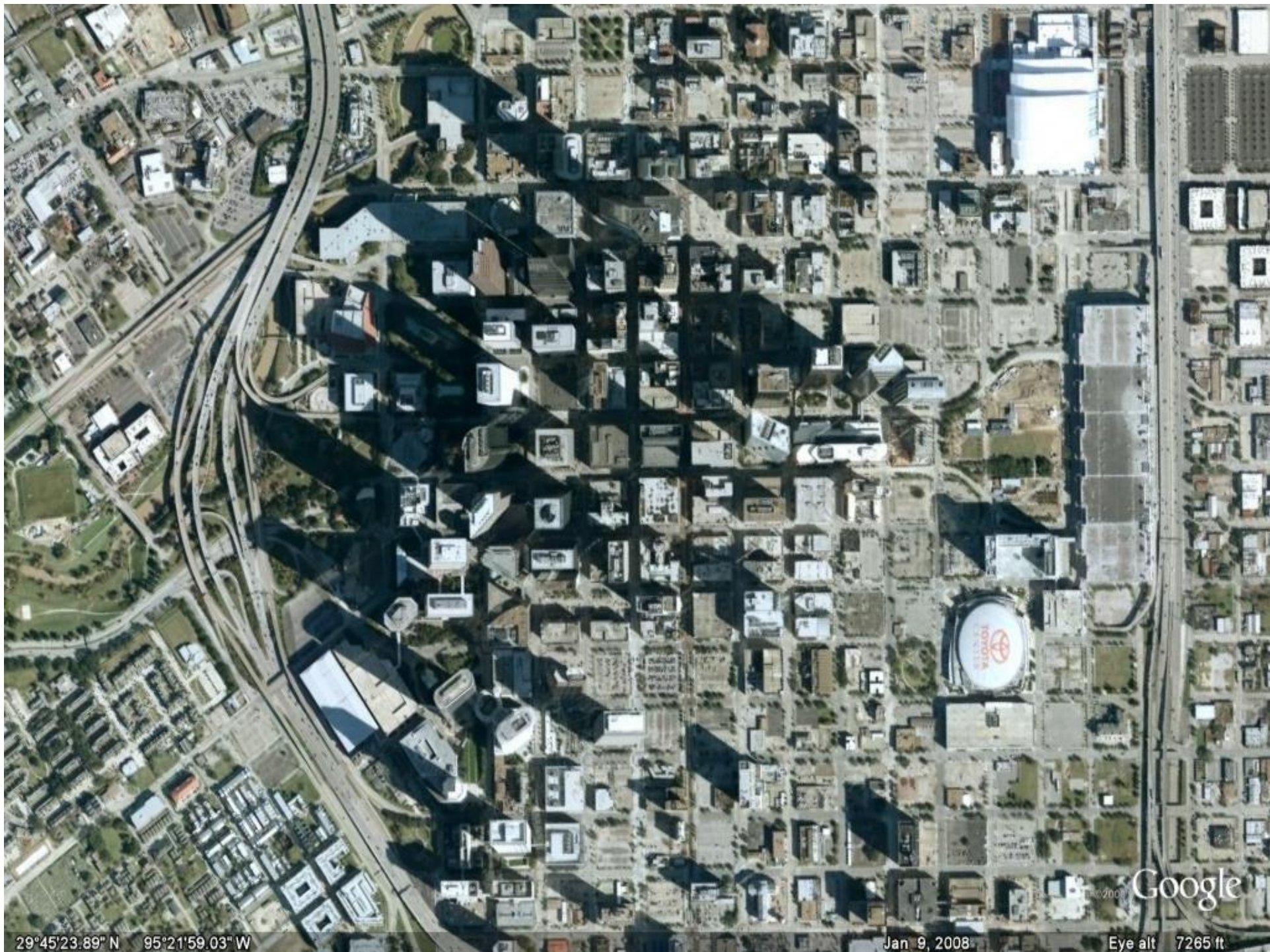
\$29.5 million in public funds committed

\$72 million in private donations generated

\$300 million projected annual revenue from park operations

\$550 million of new real estate projects under construction





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Jan 9, 2008

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GEORGE R. BROWN CONVENTION CENTER



Above: *Monument au Fantome* sculpture by French artist Jean Dubuffet

Below: *Mist Tree* water sculpture by San Francisco artist Doug Hollis



Houston's Discovery Green

This park is another great example of how public/private partnerships combined with expert planning and design, can create an urban space which addresses the needs of a diverse cosmopolitan population. Discovery Green occupies the equivalent of eight city blocks on the east side of Houston's downtown core, and represents a major part of the roughly \$4 billion dollar public and private redevelopment efforts undertaken in Houston over the last decade.

This 12 acre expanse of land creates a pedestrian space that integrates three of the city's major public gathering places. A north-south promenade connects the Minute Maid Ballpark with the Toyota Center, home to the Houston's professional baseball and basketball teams, respectively. Along the east-west axis, another promenade unites the city's core commercial district with the George R. Brown Convention Center.

The park's list of amenities includes a five-star restaurant, a casual café, an amphitheater, interactive water features, a one acre lake, a bocce ball pitch, horseshoe pits, expansive gardens, a centralized lawn, a putting green, and dog runs for both large and small breeds.

Community-Focused Development

Integrating works of art into the design of the park has made Discovery Green a cultural hub of sorts, attracting local families and tourists to experience their aesthetic beauty. In the first 4 months of operation, the park was visited by more than 230,000 people. The park also serves as a great location for private events, which drew another 75,000 visitors in the same period of time.

Security guards and field staff patrol the grounds 24 hours a day to ensure the safety of park visitors, one major operational concern. Park designers also credit their landscaping as "crime prevention through environmental design." High light levels, visual continuity and the abundance of windows lining the park create a feeling of security.

Houston's Discovery Green

The city of Houston is committed to providing \$750,000 per year to fund the ongoing maintenance of the park. An additional \$750,000 in rent from the park's two restaurants is projected, calculated as a percent of gross sales revenue. The Discovery Green Conservancy, the major philanthropic group behind the conception of this park, is expected to supply an average of \$600-750,000 annually by raising the funds at charity events. Rent from private events, programming sponsorships and other festivals throughout the year is expected to generate another \$650-750,000 per year.

Real Estate Impact

Similar to the effect of Millennium Park on Chicago's Central Michigan Avenue real estate submarket, the east side of Houston's downtown has experienced significant new development and real estate value appreciation. According to Bob Eury, president of Central Houston, Inc., upon announcement of the park, "Discovery Green has shaped new development on downtown's east side with nearly \$550 million of projects now under construction and another half billion dollars soon to follow." Central Houston Inc. is a private, non-profit corporation supported by local businesses and institutions.

One highlight of the new developments underway is a 37-story residential high rise, One Park Place, which is the first of its kind in nearly a half-century. Located across the street from the new park, its development company uses Discovery Green as a major selling point for the residential space.

Attracting Business

This park's close proximity to Houston's commercial core, in addition to being located adjacent to the Brown Convention Center, are expected to boost commercial and retail interest in the local real estate market. Hess Tower, a 30-story mixed-use office and retail development by developer Trammel Crow, is currently taking shape on the park's northern border. Although the project started as a speculative development, Hess Corporation committed to lease the entire building shortly after construction commenced. This constitutes the second largest office lease in the U.S. in 2009.



Above: A view across *Kinder Lake* towards the Brown Convention Center

Below: The *Gateway Fountains* serve as an interactive water feature

